

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this application.

Claims:

1. (original) A method of fracturing a subterranean formation comprising the steps of:

providing a fracturing fluid comprising a viscosifier; and a fluid loss control additive that comprises a deformable, degradable material; and

contacting the formation with the fracturing fluid so as to create or enhance at least one fracture therein.

2. (original) The method of claim 1 further comprising the step of removing the fracturing fluid from the subterranean formation.

3. (original) The method of claim 1 wherein the deformable, degradable material comprises a degradable polymer.

4. (original) The method of claim 3 wherein the degradable polymer comprises a polysaccharide, a chitin, a chitosan, a protein, an aliphatic polyester, a poly(glycolide), a poly(lactide), a poly(ϵ -caprolactone), a poly(hydroxybutyrate), a polyanhydride, an aliphatic polycarbonate, a poly(orthoester), a poly(amino acid), a poly(ethylene oxide), or a poly(phosphazene).

5. (original) The method of claim 1 wherein the deformable, degradable material further comprises a plasticizer or a stereoisomer of a poly(lactide).

6. (original) The method of claim 5 wherein the stereoisomer of a poly(lactide) comprises a mixture of a D and L stereoisomers of poly(lactide).

7. (original) The method of claim 1 wherein the deformable, degradable material comprises poly(lactic acid).

8. (original) The method of claim 1 wherein the deformable, degradable material has a particle size distribution in the range of from about 1 micron to about 1,000 microns.

9. (original) The method of claim 1 wherein the deformable, degradable material has a particle size distribution in the range of from about 100 microns to about 850 microns.

10. (original) The method of claim 1 wherein the deformable, degradable material has a median particle size of about 200 microns.

11. (original) The method of claim 1 wherein the fluid loss control additive comprising the deformable, degradable material is present in the fracturing fluid in an amount in the range of from about 0.01% to about 2% by weight of the fracturing fluid.

12. (original) The method of claim 1 wherein the deformable, degradable material further comprises a hydrated organic or inorganic solid compound.

13. (original) The method of claim 12 wherein the fluid loss control additive comprising the deformable, degradable material deforms to obstruct pores in the formation.

14. (original) The method of claim 12 wherein the hydrated organic or inorganic solid compound comprises sodium acetate trihydrate, L-tartaric acid disodium salt dihydrate, sodium citrate dihydrate, sodium tetraborate decahydrate, sodium hydrogen phosphate heptahydrate, sodium phosphate dodecahydrate, amylose, a starch-based hydrophilic polymer, a cellulose-based hydrophilic polymer, or a mixture thereof.

15. (original) The method of claim 1 wherein the fracturing fluid further comprises a base fluid.

16. (original) The method of claim 15 wherein the base fluid is water, oil, or a mixture thereof.

17. (original) The method of claim 15 wherein the base fluid is present in the fracturing fluid in an amount in the range of from about 30% to about 99% by weight of the fracturing fluid.

18. (original) The method of claim 1 wherein the viscosifier comprises a biopolymer, a cellulose derivative, or a mixture thereof.

19. (original) The method of claim 18 wherein the biopolymer comprises xanthan, succinoglycan, or a mixture thereof.

20. (original) The method of claim 18 wherein the cellulose derivative comprises hydroxyethylcellulose, guar, a guar derivative, or a mixture thereof.

21. (original) The method of claim 20 wherein the guar derivative is hydroxypropyl guar.

22. (original) The method of claim 1 wherein the viscosifier is present in the fracturing fluid in an amount in the range of from about 0.01% to about 1.0% by weight of the fracturing fluid.

23. (original) The method of claim 1 wherein the fracturing fluid further comprises a buffer compound.

24. (original) The method of claim 23 wherein the buffer compound is calcium carbonate, ammonium acetate, or magnesium oxide.

25. (original) The method of claim 1 wherein the fracturing fluid further comprises a de-emulsifier, a salt, a crosslinking agent, a clay inhibitor, a proppant, an acid, a breaker, a bactericide, caustic, or a mixture thereof.

26. - 87. (Cancelled).